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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,096	03/13/2001	Gijsbert Joseph Van Den Enden	PHN 17,551	1082
24737	7590	01/23/2006		
PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			EXAMINER AGUSTIN, PETER VINCENT	
			ART UNIT	PAPER NUMBER
			2652	
DATE MAILED: 01/23/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/787,096

Applicant(s)

VAN DEN ENDEN, GILBERT
JOSEPH

Examiner

P. Agustin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 18-20 and 23 is/are rejected.
- 7) ☒ Claim(s) 16, 17, 21 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/13/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-23 are now pending.

Claim Objections

2. Claims 5, 9, 18, 20, 21 & 23 are objected to because of the following informalities:

Claim 5, line 2: "comprising" should be --further comprising--.

Claim 9, line 2: "comprising" should be --the method further comprising--.

Claim 18, lines 4-5: "a level of a preselected fraction of said maximum value is chosen as the predetermined signal threshold is equal to approximately 0.5" is grammatically incorrect and needs to be rephrased.

Claim 20, line 1: "Claimed" should --claimed--.

Claim 21, lines 4-5: "signal threshold" should be --the predetermined signal threshold--.

Claim 23, line 7: "it" should be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-12 & 18-20 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the resulting recording track" on lines 6-7. There is insufficient antecedent basis for this limitation in the claim.

Claims 2-12 & 18-20 are dependent upon claim 1.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3, 5, 6, 9, 10, 13-15, 18 & 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya et al. (JP 01-253638) (please refer to English translation) in view of Takasago et al. (US 4,730,290).

Tsuchiya et al. disclose: in regard to claim 1, a method of examining a record carrier for the presence of a defect (see title) comprising following a track to be examined and monitoring a resulting tracking signal (page 7, last paragraph); and rating the examined recording track for the presence of media defects on the basis of characteristics of the resulting tracking signal (page 8, first paragraph); and in regard to claim 13, a method of recording information on a record carrier, comprising: monitoring a recording track to provide a rating of defects contained on the track (see page 7, last paragraph thru page 8, first paragraph).

However, Tsuchiya et al. do not disclose: in regard to claim 1, determining if recording should be discontinued based on the rating indicating that the resulting recording track contains defects; in regard to claim 13, based on a resulting tracking signal indicating that the track contains a defect, determining whether the recording process is to be continued or discontinued; and in regard to claim 14, that the recording process is discontinued if the absolute value of the tracking signal appears to have a value which exceeds a predetermined signal threshold for a predetermined period of time or longer.

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Takasago et al. disclose: in regard to claims 1 & 13, determining if recording should be discontinued based on the presence of a defect (column 3, lines 36-39; column 7, lines 6-11) or, in regard to claim 14, if the absolute value of a tracking signal exceeds a predetermined signal threshold for a predetermined period of time or longer (see abstract, lines 4-13). It would have been obvious to one of ordinary skill in the art at the time of invention by the Applicant to have applied the teachings of Takasago et al. to the method of Tsuchiya et al., the motivation being to prevent erroneous recording (column 7, line 11).

In regard to claim 2, Tsuchiya et al. disclose that the examined recording track is rated as being defective if the absolute value of the tracking signal has a value which exceeds a predetermined signal threshold for a predetermined period of time or longer (see Figure 3 in conjunction with page 4, paragraph 2, line 14: "tracking error signal" and page 5, paragraph 2, line 6: "pulse width").

In regard to claims 3 & 15, Tsuchiya et al. disclose that the tracking signal has a nominal signal value of zero which corresponds to the center of a track (note: the "tracking error signal" is zero in an on-track condition), and has a maximum value which corresponds to a maximum lateral deviation with respect to the center of a track (note: the claimed "maximum lateral deviation" simply corresponds to an arbitrary offset position of the optical head of Tsuchiya et al. that causes a maximum "tracking error signal"), and wherein a level of a preselected fraction of said maximum value is chosen as the predetermined signal threshold (the "threshold value" in Figure 3 is clearly a "preselected fraction").

In regard to claim 5, Tsuchiya et al. disclose that the record carrier is examined for the presence of spot defects (see Figure 3), the method comprising: a) examining the integrity of

predetermined test tracks of the record carrier (see page 6, last paragraph, line 3: "increment of a track block with a certain interval"); b) examining the integrity of tracks adjacent the relevant test track each time that upon the examination a test track appears to be defective, in order to determine in this way the number of tracks affected by the same spot defect (see page 7, first paragraph, line 2: "one or more multiple tracks each anterior & posterior to the detected defective portions"); c) entering the relevant tracks in a defect list each time that the number thus determined in the step (b) is greater than a predetermined threshold value (see page 8, paragraph 1, last four lines); d) storing the defect list in a memory (see page 8, paragraph 1, last line).

In regard to claim 6, Tsuchiya et al. disclose that a predetermined number of tracks between successive test tracks is skipped (see patent claim 1, line 3: "jump scan" and lines 4-5: "an increment of a certain track number each").

In regard to claim 9, Tsuchiya et al. disclose that the record carrier is examined for the presence of spot defects (see Figure 3), comprising: a) examining the integrity of predetermined test tracks of the record carrier (see page 6, last paragraph, line 3: "increment of a track block with a certain interval"); b) entering the relevant tracks in a primary defect list each time that upon the examination of a test track it appears to be defective, and entering tracks situated in a suspect area at opposite sides of the relevant test track in an alarm list (see page 7, first paragraph, line 2: "one or more multiple tracks each anterior & posterior to the detected defective portions"); c) storing the primary defect list and the alarm list in a memory (see page 8, paragraph 1, last four lines).

In regard to claim 10, Tsuchiya et al. disclose that a predetermined number of tracks between successive test tracks is skipped (see patent claim 1, line 3: "jump scan" and lines 4-5:

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“an increment of a certain track number each”), and wherein each suspect area always extends from the relevant test track to the directly preceding and the directly following test track, respectively (note “anterior & posterior to the detected defective portions” in page 7, line 2).

In regard to claim 18, Tsuchiya et al. disclose that the tracking signal has a nominal signal value of zero which corresponds to the center of a track (note: the “tracking error signal” is zero in an on-track condition), and has a maximum value which corresponds to a maximum lateral deviation with respect to the center of a track (note: the claimed “maximum lateral deviation” simply corresponds to an arbitrary offset position of the optical head of Tsuchiya et al. that causes a maximum “tracking error signal”), and wherein a level of a preselected fraction of said maximum value is chosen as the predetermined signal threshold is equal to approximately 0.5 (the “threshold value” in Figure 3 is clearly a “preselected fraction” which is approximately 0.5 of the peak value).

In regard to claim 23, Tsuchiya et al. disclose a method of examining a record carrier for the presence of a defect (see title) comprising: monitoring a track to be examined and generating a tracking signal from the track that is monitored (page 7, last paragraph); rating the track for the presence of spot defects based on characteristics of the tracking signal (page 8, first paragraph); entering the track into a defect list if the track it appears to be defective (see page 8, paragraph 1, last four lines); and creating a suspect area list for other tracks at opposite sides of the track if the track appears to be defective (see page 8, paragraph 1, last four lines in conjunction with page 7, line 2: “anterior & posterior to the detected defective portions”).

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7. Claims 7, 8, 11 & 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya et al. & Takasago et al. as applied to claims 5, 6 & 10 above, and further in view of Fukushima et al. (US 5,237,553).

For a description of Tsuchiya et al. & Takasago et al., see the rejection above.

Furthermore, Tsuchiya et al. disclose: in regard to claims 8 & 11, a record carrier (shown in Figure 4) of the type having a multitude of concentric substantially circular recording tracks (also note title: "disc-shaped"); and first providing, in an examination phase, a defect list of tracks affected by a comparatively large spot defect (page 10, paragraph 4, line 11: "grave defects") by means of a method as claimed in Claim 6 (as noted in the rejection above); and in regard to claim 11, first providing, in a primary examination phase, a primary defect list of test tracks having a defect (page 10, paragraph 4, lines 3-4: "a cluster of tracks of a certain interval on the disc-shaped optical recording medium is initially subjected to inspection") and, optionally, an alarm list of tracks situated in a suspect area at opposite sides of the relevant test tracks (page 10, paragraph 4, lines 10-11: "tracks anterior & posterior to said defective portion"), by means of a method as claimed in Claim 10 (as noted in the rejection above); subsequently examining the integrity of the tracks in said suspect areas in a secondary examination phase (page 10, paragraph 4, line 11: "re-inspection"), in order to determine in this way the number of tracks affected by the same spot defect; entering the relevant tracks in a secondary defect list each time that the number thus determined is greater than a predetermined threshold value (see page 8, paragraph 1, last four lines).

However, Tsuchiya et al. & Takasago et al. do not disclose: in regard to claim 7, that the defect list is recorded on the examined record carrier; in regard to claim 8, a method of recording

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information comprising subsequently recording information on the disc in a recording phase while reference is made to said defect list, the recording tracks included in said defect list being skipped in the recording process; in regard to claim 11, a method of recording information comprising subsequently recording information on the disc in a recording phase while reference is made to said primary defect list and said optional alarm list, the recording tracks included in said primary defect list as well as the tracks situated in a suspect area at opposite sides of the relevant test tracks being skipped in the recording process; and in regard to claim 12, that the secondary defect list is recorded on the examined record carrier.

Fukushima et al. disclose a defect list recorded on a record carrier (see R LIST AREA in Figure 2) and a method of recording information comprising subsequently recording information on the disc in a recording phase while reference is made to said defect list, the recording tracks included in said defect list being skipped in the recording process (column 9, lines 57-63). It would have been obvious to one of ordinary skill in the art at the time of the invention by the Applicant to have applied the teachings of Fukushima et al. to the method of Tsuchiya et al. & Takasago et al., the motivation being to enable defect management and sequential reproduction of real time data (column 2, lines 56-61).

Allowable Subject Matter

8. Claims 4, 19 & 20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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9. Claims 16, 17, 21 & 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments filed December 9, 2005 have been fully considered but they are not persuasive.

a. The Applicant argues on page 7, last paragraph that “there is no disclosure or suggestion for monitoring the tracking signal”. The Examiner disagrees. Tsuchiya et al. teaches computing a tracking error signal corresponding to the positional deviation, which corresponds to the claimed “monitoring the tracking signal”. This interpretation is consistent with Applicant’s definition of “tracking signal”, see for example, page 6, second paragraph of the Applicant’s specification, which recites “the tracking signal is proportional to the radial deviation of the laser beam with respect to the track center and that the sign of the tracking signal indicates the direction of the deviation”, i.e., a well known definition of a tracking error signal corresponding to positional deviation.

b. The Applicant argues on page 7, last paragraph that Tsuchiya et al. do not disclose or suggest the added features of claim 1. The Examiner agrees. However, as noted in the 103 rejection above, the combination of Tsuchiya et al. & Takasago et al. renders these features obvious. Therefore, claim 1 is not allowable.

c. The Applicant argues on page 8, paragraph 1 that there is no disclosure or suggestion within Tsuchiya et al. for determining the absolute value of the tracking signal. This argument is not persuasive for two reasons: (1) the features upon which the

Applicant relies, i.e., determining the absolute value of the tracking signal, is not recited in the rejected claim; and (2) Tsuchiya et al. recites on page 4, second paragraph, line 13 the term “magnitude”, which corresponds to “absolute value”.

d. The Applicant argues on page 8, paragraph 2 that Tsuchiya et al. do not discuss the claimed “tracking signal has a nominal signal value of zero which corresponds to the center of a track, and has a maximum lateral deviation with respect to the center of a track”. In response to this, the Examiner maintains that these features are nevertheless inherent, although not expressly recited by Tsuchiya et al. using the exact words of the Applicant’s claim. The nominal signal value of zero is an arbitrary value which is interpreted as corresponding to an on-track condition of the device of Tsuchiya et al., i.e., there is no deviation from the center of the track. Likewise, the claimed maximum lateral deviation simply corresponds to an arbitrary offset position of the optical head of Tsuchiya et al., that causes a maximum “tracking error signal”, which is inherent not only in Tsuchiya et al., but in any optical head used for recording/reproducing optical data.

e. The Applicant argues on page 8, paragraph 2 that there is no disclosure or suggestion for the “threshold value” in Figure 3 of Tsuchiya et al. to be a “preselected fraction” of the tracking signal and that the signal shown in Figure 3 of Tsuchiya et al. is a playback signal and not a tracking signal. This is not found persuasive. On page 4, paragraph 2, Tsuchiya et al. teach that defect detection is performed using either a playback signal, a tracking error signal, or a focus error signal. Therefore, Tsuchiya et al. suggest that the diagram in Figure 3 is applicable to any of these three parameters. Figure

3 shows a threshold value which is approximately half of the peak value, i.e., it is a preselected fraction.

f. The Applicant argues on page 8, paragraph 4 that there is no disclosure or suggestion for entering the relevant tracks in a defect list each time that the number determined is greater than a predetermined threshold value within Tsuchiya et al. The Examiner disagrees. This feature is disclosed on page 8, paragraph 1, last four lines, which recite “a defect information recording unit designed to accumulate the sets of error generation positional information within the playback signal (RF), tracking error signal (TE)...and it is constituted by a memory”.

g. The Applicant argues on page 9, paragraph 1 that “there is no disclosure or suggestion for deterring a primary defect list and entering tracks situated in a suspect area at opposite sides of the relevant test track in an alarm list within Tsuchiya et al”; and that “there is no disclosure or suggestion storing both the primary defect list and the alarm list in a memory”; and that “there is no teaching for storing multiple lists within Tsuchiya et al.”. The Examiner disagrees. Tsuchiya et al. teach on page 7, first paragraph, line 2 “one or more multiple tracks each anterior & posterior to the detected defective portions”; and on page 8, paragraph 1, last four lines “a defect information recording unit designed to accumulate the sets of error generation positional information within the playback signal (RF), tracking error signal (TE)...and it is constituted by a memory”.

h. The Applicant argues on page 10, paragraph 3 that “there is no disclosure or suggestion within Tsuchiya et al. for an alarm list of tracks situated in a suspect area at opposite sides of the relevant test tracks”. The Examiner disagrees. Tsuchiya et al.

disclose this feature on page 10, paragraph 4, lines 10-11: "tracks anterior & posterior to said defective portion".

i. The Applicant argues on page 13, second paragraph that Takasago et al. do not teach continuing or discontinuing based on the rating of the tracking error signal. The Examiner disagrees. The Applicant is directed to the abstract, which teaches a tracking error detecting circuit for detecting the digression of the laser beam from the center line of each track and a level detector for detecting that the output of the tracking error detecting circuit exceeds a predetermined level, and an operation for recording information in the optical disc by the laser beam is stopped when the output of the level detector takes a predetermined state indicating that the output of the tracking error detecting circuit exceeds the predetermined level.

j. The Applicant argues on page 13, last paragraph that Takasago et al. do not disclose or suggest that if the tracking signal exceeds a predetermined value for a predetermined time, that the recording process is discontinued. The Examiner disagrees. The Applicant is directed to the abstract, which teaches stopping the recording when the output of a tracking error detecting circuit exceeds a predetermined level for a first predetermined time.

k. The Applicant's arguments on page 13 paragraph 2 thru page 14, last paragraph are not persuasive because the Applicant is attacking references individually where the rejections are based on combination of references. The Tsuchiya et al. has been relied upon as the primary reference. The Takasago et al. reference was relied upon to teach the lacking features of Tsuchiya et al.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to P. Agustin whose telephone number is 571-272-7567. The examiner can normally be reached on Monday-Friday 9:30-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A. L. Wellington can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

P. Agustin
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BRIAN E. MILLER
PRIMARY EXAMINER